

Portland State University

PDXScholar

TREC Webinar Series

Transportation Research and Education Center
(TREC)

3-17-2020

Webinar: When Growth Outpaces Infrastructure: A Community-Engaged Assessment of Transportation Gaps

Jandel Crutchfield

University of Texas at Arlington

Kate Hyun

University of Texas at Arlington

Follow this and additional works at: https://pdxscholar.library.pdx.edu/trec_webinar



Part of the [Transportation Commons](#), [Urban Studies Commons](#), and the [Urban Studies and Planning Commons](#)

Let us know how access to this document benefits you.

Recommended Citation

Crutchfield, Jandel and Hyun, Kate, "Webinar: When Growth Outpaces Infrastructure: A Community-Engaged Assessment of Transportation Gaps" (2020). *TREC Webinar Series*. 46.
https://pdxscholar.library.pdx.edu/trec_webinar/46

This Book is brought to you for free and open access. It has been accepted for inclusion in TREC Webinar Series by an authorized administrator of PDXScholar. For more information, please contact pdxscholar@pdx.edu.

COLLIN COUNTY AND UNIVERSITY OF TEXAS AT ARLINGTON RESEARCH COLLABORATION

Jandel Crutchfield, PhD

Courtney Cronley, PhD

Kate Hyun, PhD

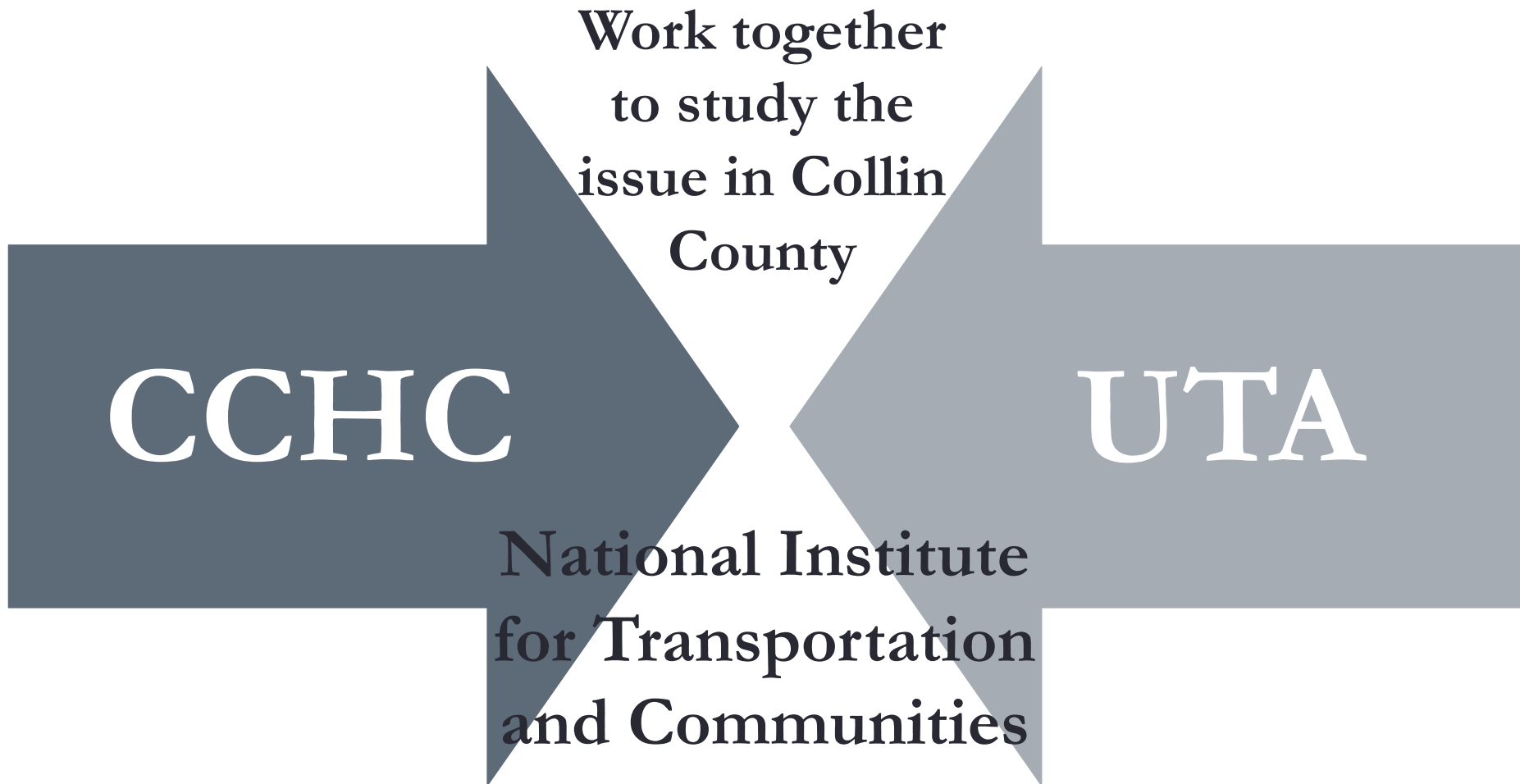
School of Social Work
& College of Engineering



Approved Funding Topic

- Studied the impact of transportation on residents' access to opportunities in the face of swift regional economic growth
- Study conducted exclusively in Collin County
- Focus groups: 13 non-EJ and 15 EJ residents
- Collected survey data from 205 residents

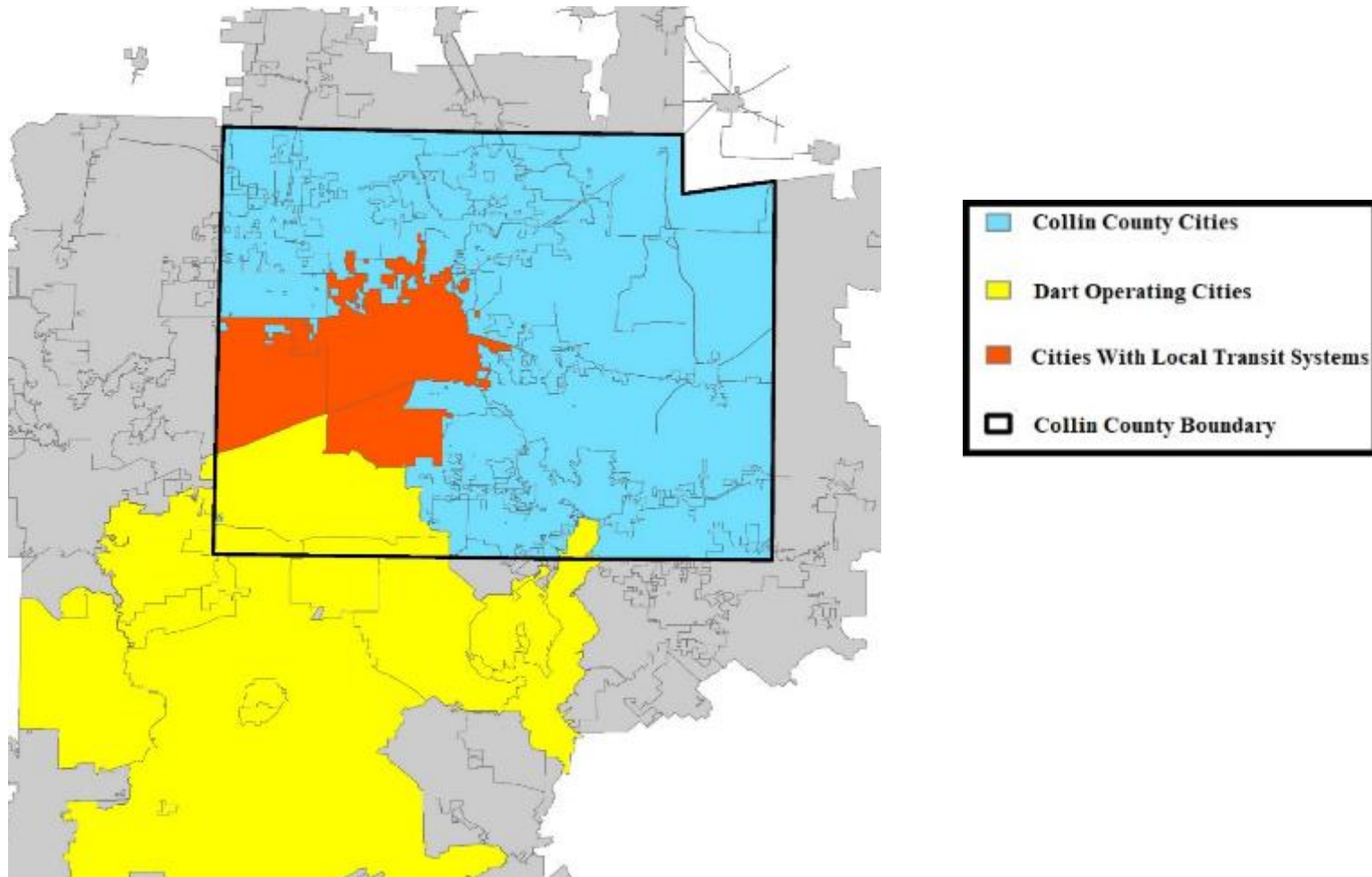
Collaborative Opportunity



Research Questions

- **Question 1:** To what extent has transportation-infrastructure maintained pace with corresponding economic growth, from the perspectives of suburban boomtown residents?
- **Question 2:** How has this pace influenced residents' access to housing, employment, healthcare, education, and social activities?
- **Question 3:** How do perspectives differ between EJ and non-EJ residents?

Existing Public Transit in Collin Co.

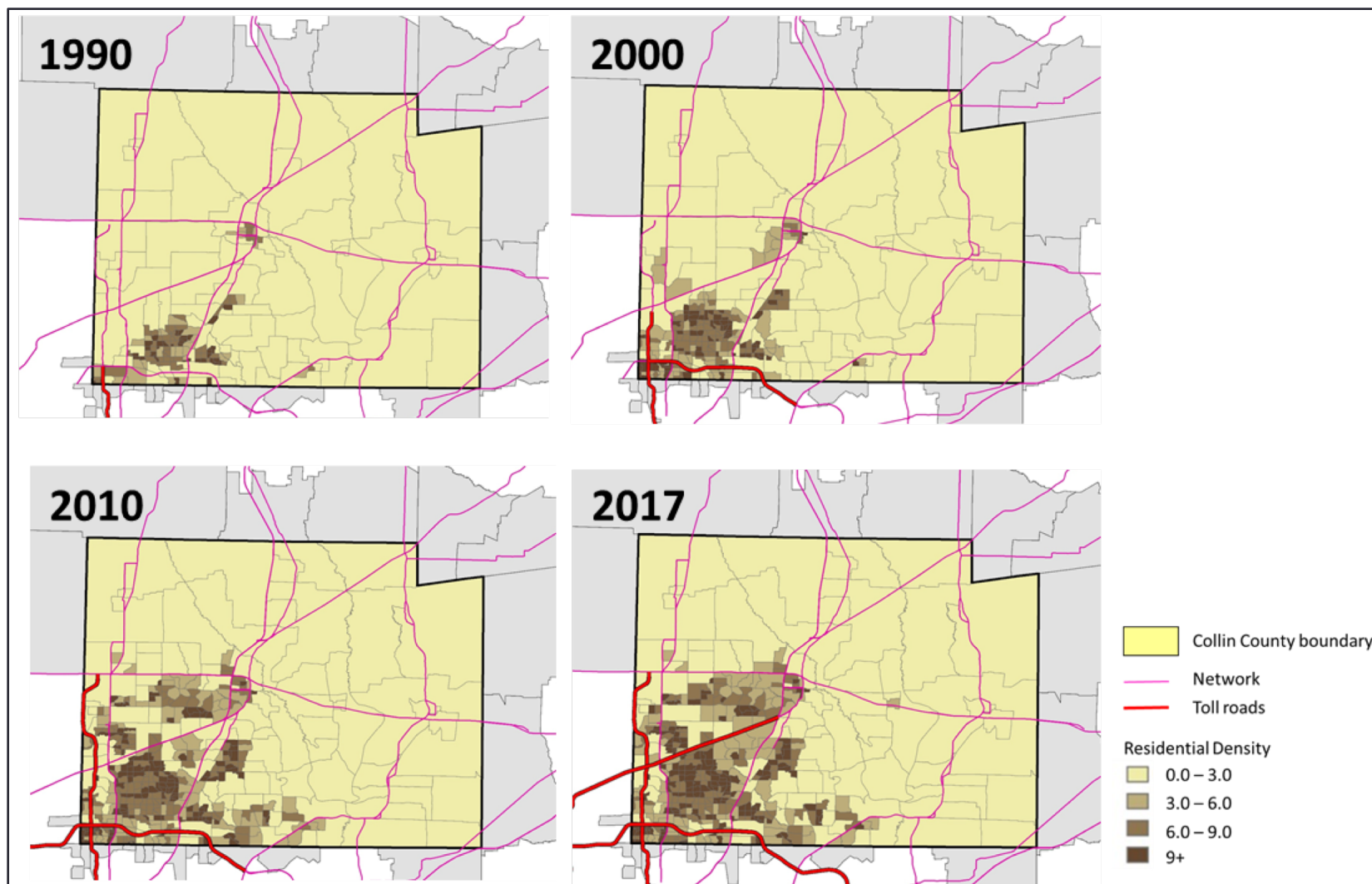


Only **4**
of the **25**

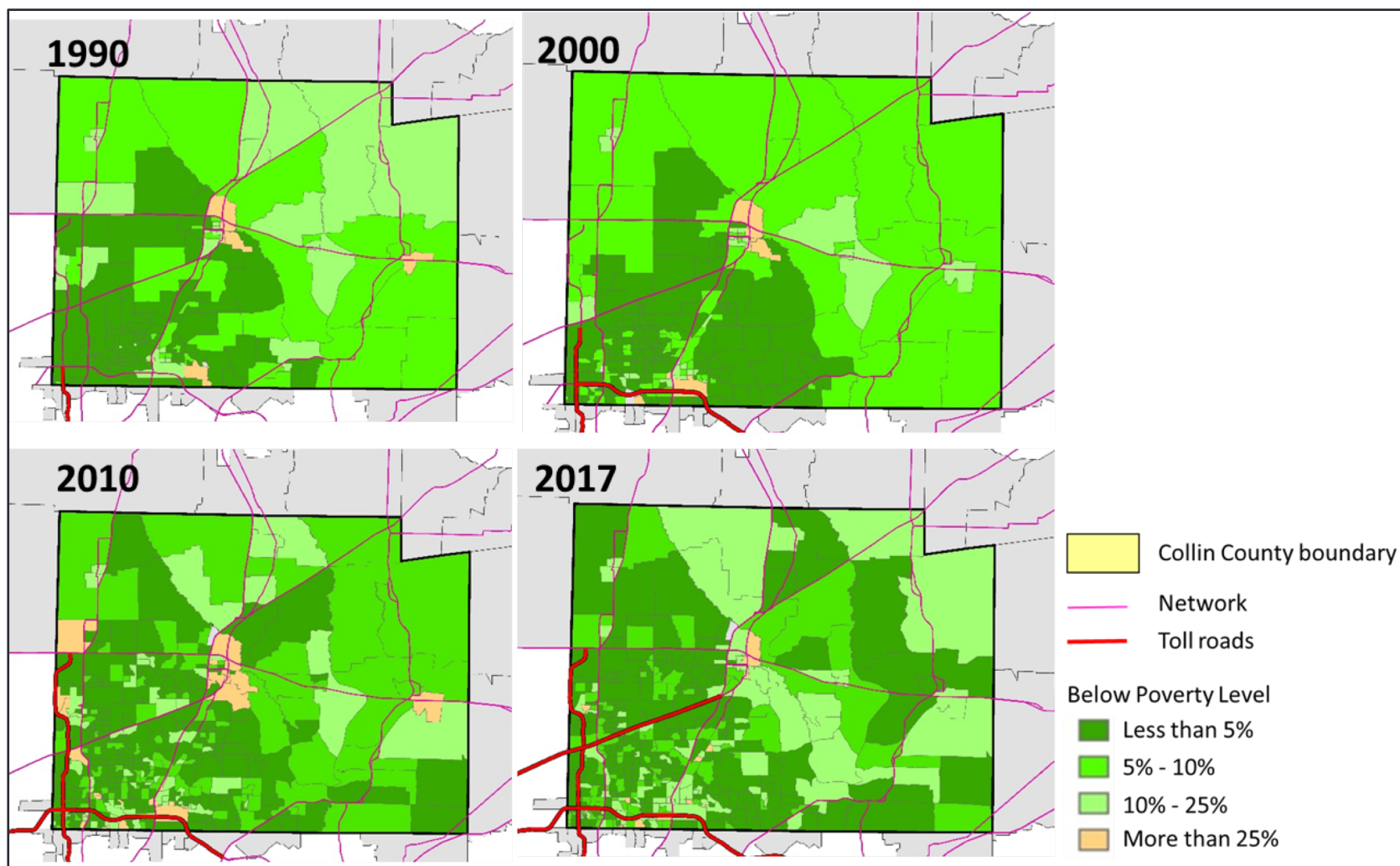
cities within Collin County provide a city or community-based transportation system including curb-to-curb paratransit, fixed route bus or rail services.

- McKinney
- Allen
- Frisco
- Plano

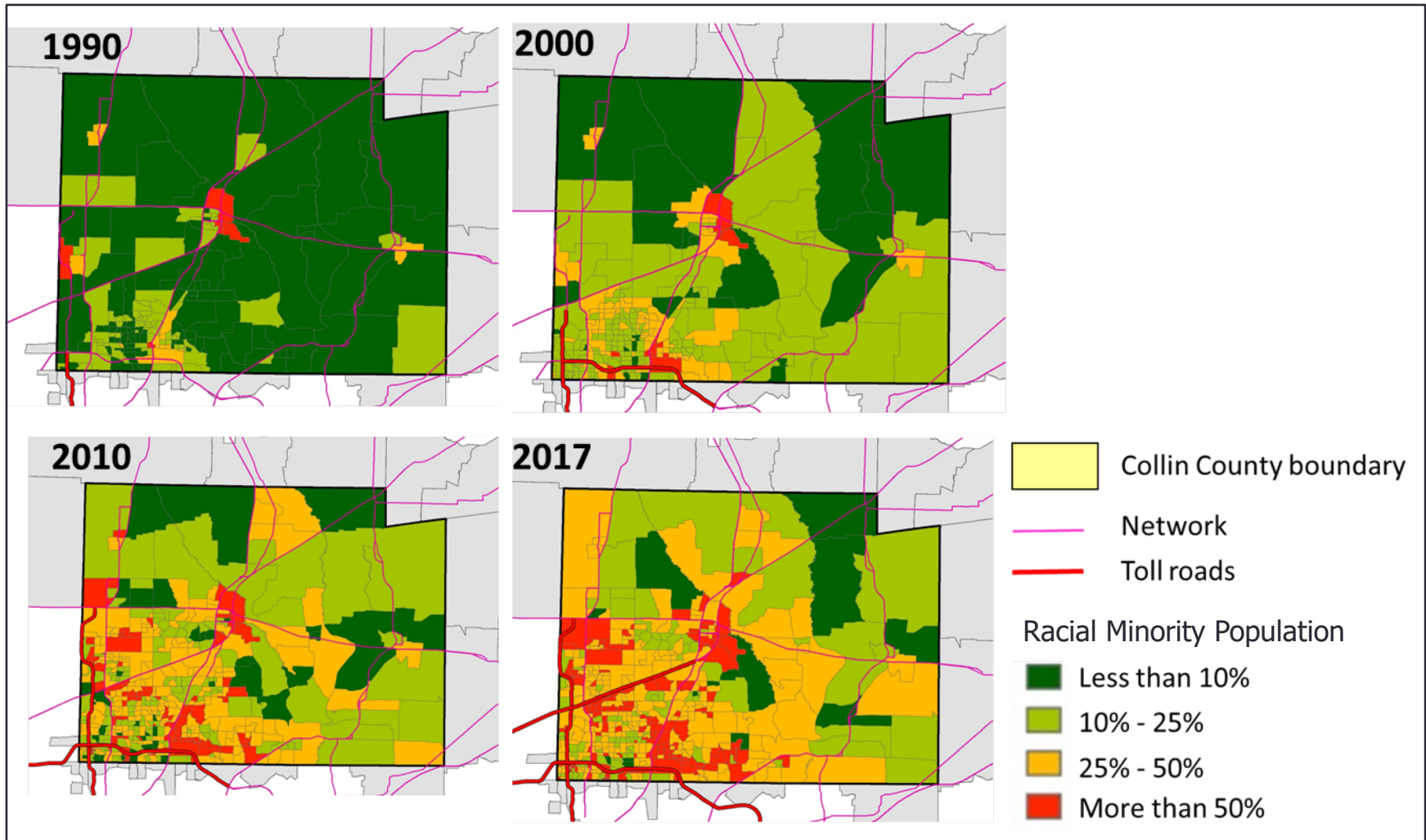
Population Density in Collin County



Percentage Low-Income Residents



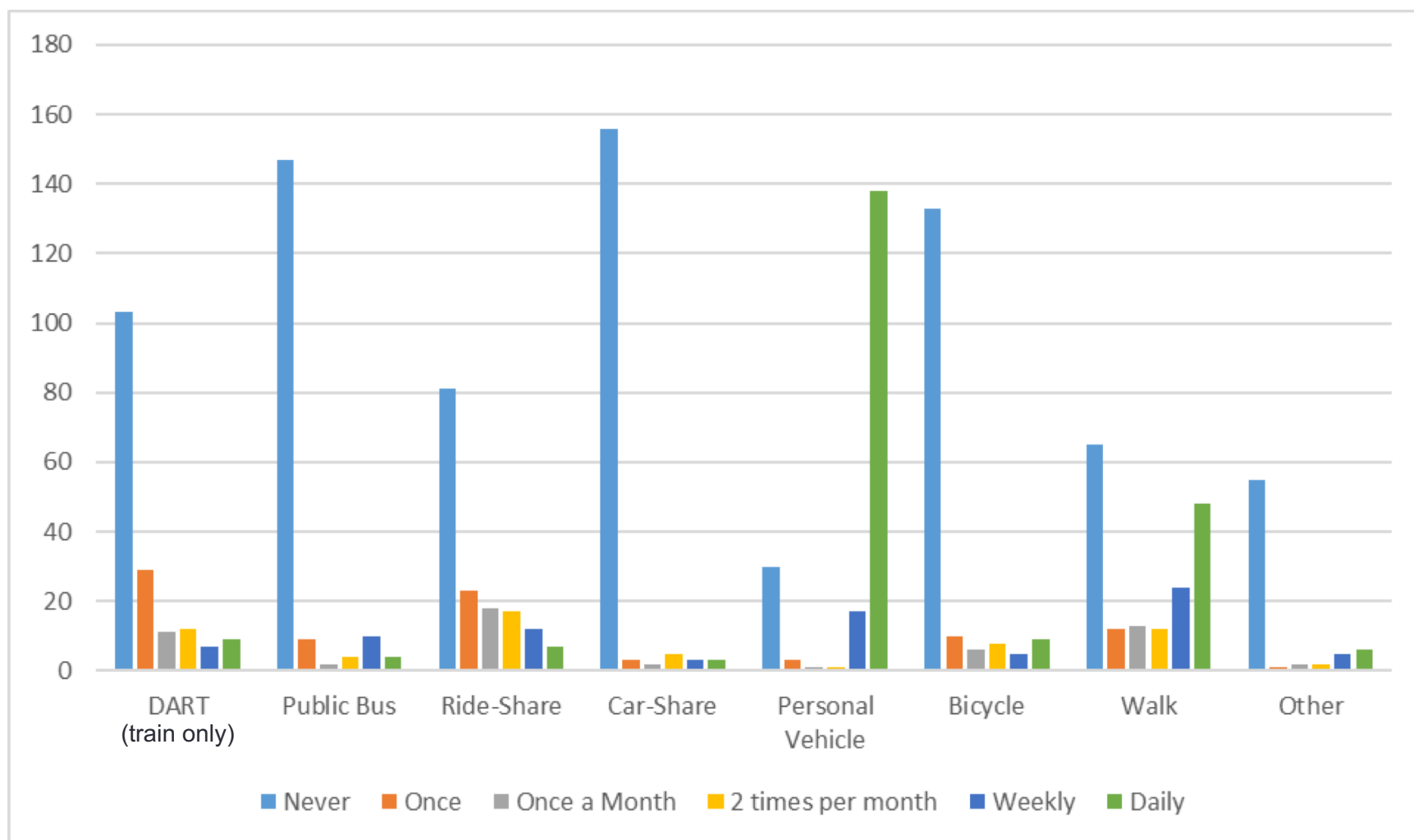
Percentage Minority Population



Survey Demographics (*n=205*)

- **EJ (105) & Non-EJ (100)**
- **Age Range:** 17 to 98 years
- **Age:** Majority 35-44 years (23.41%)
- **Race/Ethnicity:** Majority Caucasian (36.36%); African American (24.75%); Hispanic (7.58%); and Asian (2.53%)
- **Education:** Majority college degree (26.83%); HS degree or equivalent (20.49%); and some college degree (17.07%)
- **Household:** Over 43% of the respondents are married (47.7%)
- **Employment:** Over 28% unemployed at time of survey

Transportation Mode & Frequency



Transportation mode for trips to work

	EJ population		Non-EJ Population	
	White (N=16)	Non-White (N=59)	White (N=45)	Non-White (N=35)
Personal Car	56.25%	52.54%	97.78%	94.29%
Shared mobility	0.00%	16.95%	0.00%	0.00%
Public Transit	25.00%	10.17%	0.00%	2.86%
Active Mode	18.75%	20.34%	2.22%	2.86%

Preferred vs. Typical Mode of Travel to Work

EJ

		Typical Mode to Work				Total
		Personal Car	Shared mobility	Public Transit	Active Mode	
Preferred Mode to Work	Personal Car	37	5	2	7	51
	Shared mobility	0	5	1	0	6
	Public Transit	5	2	7	2	16
	Active Mode	0	0	0	6	6
	Total	42	12	10	14	

Non-EJ

		Typical Mode to Work				Total
		Personal Car	Shared mobility	Public Transit	Active Mode	
Preferred Mode to Work	Personal Car	71	0	0	1	72
	Shared mobility	0	0	0	0	0
	Public Transit	6	0	1	0	7
	Active Mode	3	0	0	1	4
	Total	80	0	1	2	

Barriers to Using Public Transit

EJ

Ranking	All users (N=80)	Transit users (N=11)
1	Inconvenience (18.97%)	Costs (27.27%)
2	Access Points (16.41%)	Inconvenience (13.64%)
3	Wait times (16.41%)	Access Points (13.64%)

Non-EJ

Ranking	All users (N=85)	Transit users (N=1)
1	Inconvenience (25.00%)	Other
2	Access Points (20.35%)	-
3	Wait times (12.79%)	-

Mode Choice vs. Purpose of Trip

EJ

		Purpose of trip			
		Mandatory (N=123)	Healthcare (N=119)	Discretionary (N=248)	Other (N=101)
Mode of travel	Personal Car	55.94%	66.43%	62.65%	69.87%
	Shared mobility	10.36%	15.48%	10.78%	10.51%
	Public Transit	18.50%	10.24%	6.79%	11.03%
	Active Mode	15.19%	7.86%	19.77%	8.59%

Non-EJ

		Purpose of trip			
		Mandatory (N=139)	Healthcare (N=136)	Discretionary (N=277)	Other (N=102)
Mode of travel	Personal Car	95.43%	98.91%	86.15%	98.84%
	Shared mobility	0.00%	0.00%	1.09%	0.00%
	Public Transit	0.58%	1.09%	3.26%	0.58%
	Active Mode	3.99%	0.00%	9.50%	0.58%

Focus Group Data

3

Themes from
Qualitative
Analysis

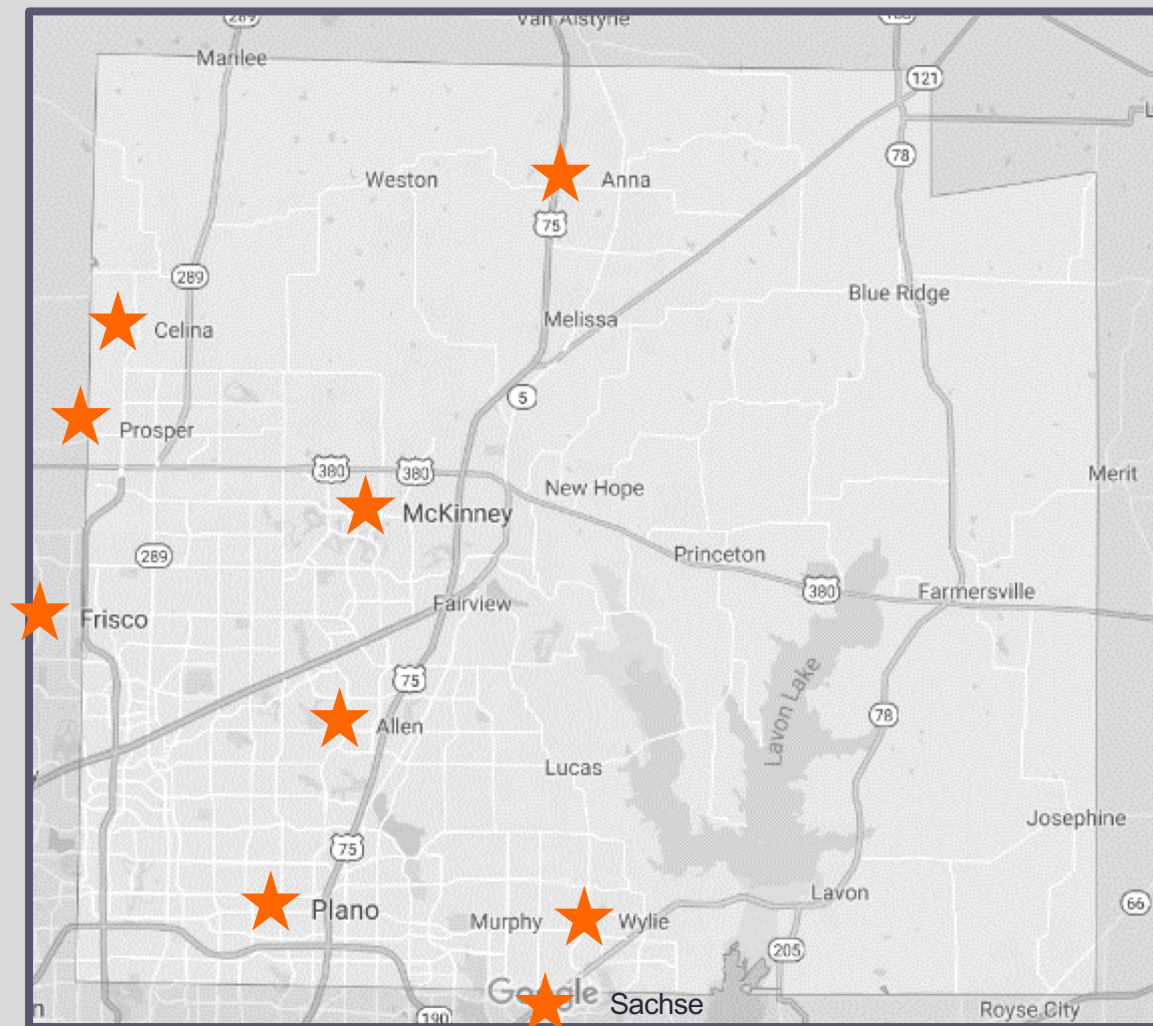


Issues

- With existing public transit systems
- Related to missing transportation infrastructure within communities
- Faced by individual residents as a result of the current public transit system

Cities Mentioned in Focus Groups

- ★ Arlington
- ★ Dallas
- ★ Ft. Worth
- ★ Richardson



Focus Groups' 3 Biggest Issues with Existing Public Transit Systems



Cost



Location (of stops)



Frequency

‘Decades Behind Where They Need to Be’

“The economy has boomed. And unfortunately, it seems that, when that takes place, it’s always the big housing developments and all that that happens first, and then all of a sudden they’re like, ‘Oh, okay, now we gotta expand the roads, and create a tollway, and do this and do that.’ It’s like they leave the infrastructure for last. Public transportation seems to be one of the last thoughts that’s on the list.”

-Collin County Resident

Issues Related to Missing Transportation Infrastructure Within Communities



It's Work to Get to Work

“For me to get to my job, I would have to get up at five o’clock in the morning, catch the bus and would go way out of the way and get on another bus that would bring me way back to where I need to go, and then get on the train, that would take me right down the street to where I needed to be. It was a nightmare. But I did that for three years straight.”

-Collin County Resident

Accessing the Doctor

Without
help,
wouldn't go.

“Well, to be honest, as far as doctor's appointments, they [her children] have Medicaid to take them, so they get help with the transportation...But if I didn't have that, then we wouldn't go.”

—*Collin County Resident*

Good
doctor, no
bus.

“You might say, well I found a good doctor in McKinney, but since I have to take the bus since [sic] the bus doesn't run in McKinney...Good doctors in McKinney, but I can't get there...”

—*Collin County Resident*

‘Massive Wealth Gap’

“...From where I’ve sat, it seems that the disparity between the people that have the means to have their own transportation and those that don’t, seems to have grown. We just haven’t necessarily supported the lower to middle income bracket. Do I think that access [has] eased up for them as a result of the booming economy? I don’t think so.”

-Collin County Resident

Issues Faced by Individual Residents in the Current Public Transit System

- Hardships
 - Extra planning time
 - Cost
 - Limited jobs/upward mobility
 - Don't/can't do things
- Travel Time
 - Traffic
 - Inefficiency of options



If You Want Them, You Need to Help Us

“It kinda depends on where Collin County wants to go, because they want employees to manage the restaurants, and the grocery stores, and the Walmart, and all those types of things. They want service workers but there needs to be transportation for somebody who earns that type of salary.”

-Collin County Resident

Recommendations from Residents

- Expansion of DART Services (busses, train line, stops, and frequencies)
- Inter-city transit option that runs multiple times per day
- Sustainable ride-sharing or on-demand program
- Multi-modal transit approach with access to residential areas
- The option to not have a car
- Changed mindset about public transit in our community